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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,893	04/20/2004	Ronald J. Yaeger	P-B199-CIP	5851

7590
Mr. Ronald J. Yaeger
4201 Tomberra Way
Dallas, TX 75220

08/23/2010

EXAMINER

COLE, ELIZABETH M

ART UNIT	PAPER NUMBER
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1782

MAIL DATE	DELIVERY MODE
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08/23/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/828,893	Applicant(s) YAEGER ET AL.	
	Examiner Elizabeth M. Cole	Art Unit 1782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-16,25,26,28 and 33-43 is/are pending in the application.
- 4a) Of the above claim(s) 25,26,28,33,35-37 and 39-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 38 is/are allowed.
- 6) ☒ Claim(s) 1,4-16 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/12/10 has been entered.

2. Claims 1-2, 4-17, 19-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not provide support for the limitation that the continuous phase comprises amorphous polymers, or that the cationic polymers comprise at least one cationic functional group or wherein the continuous phase has an overall cationic charge. The specification does not state whether the polymers are amorphous, crystalline or semi crystalline, does not contain the negative limitation regarding non-chlorinated cationic polymers, does not refer to cationic functional groups or to the polymer being a cationic polymer. The specification does state that preferred polymers comprise cationic groups, (paragraph 061). The specification at paragraph 0060 states that the "the choice of polymers that are generally cationic in nature" is taught in order to repel positively charged ions and particles in the water. However, this is not the same as

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having a cationic charged or having cationic functional groups or an overall cationic charge.

3. Claims 1-2, 4-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites the limitation "the one or more amorphous cationic polymers" in line 9. There is insufficient antecedent basis for this limitation in the claim. The amendment of 12/18/09 deletes the term amorphous from line 8 but leaves it in line 9 and thus there is no antecedent basis for the recitation of the one or more amorphous cationic polymers.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2, 4-16, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosatte et al, U.S. Patent No. 6,228,506 in view of Herbst et al, U.S. Patent No. 6,585,989. Hosatte discloses a composite enthalpy exchanges which comprises a corrugated fibrous sheet which is impregnated with a cationic polymeric material. The cationic polymeric material may comprise polyacrylates. See col. 5, lines 19-30. The instant specification teaches that polyacrylates meet the claimed properties and solubility parameters, etc. The specification discloses these resins as having suitable

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non polar solubility parameter, the polar solubility parameter, the hydrogen bond solubility parameter, the surface tension, interfacial tension, (see for example the discussion at Table 3 regarding polyacrylates. Therefore, since Hosatte discloses the same materials, it is reasonable to presume that the materials of Hosatte would meet the claimed property limitations. When the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP §§ 2112- 2112.02. Since Hosatte et al discloses a fibrous material impregnated with the resins set forth in the specification, it is reasonable to expect that these resins have the same properties as the claimed resins.

7. The enthalpy exchanger of Hosatte et al is equated with the claimed evaporative cooler.

8. . Hosatte differs from the claimed invention because it does not disclose that the polymeric material is a blend of polyamideimide and polystyrene. Herbst discloses blends of polyamideimide and polystyrene which can be used to form air conditioning components such as films for use in ventilation systems, air cleaning and air conditioning systems. See col. 3, lines 41-48. Herbst teaches that the blend can be formed to produce films having high antimicrobial activity. Therefore, it would have been obvious to have employed the particular polymer blend of Herbst in the structure of Hosatte, in order to provide a film for use in air conditioning and ventilation systems

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which had a high degree of antimicrobial activity. With regard to the particular amounts of the polyamideimide and polystyrene, it would have been obvious to have optimized the amounts of the components used through the process of routine experimentation in order to arrive at a material having the desired properties. It is noted that support for the limitations of claim 33 are not found in parent application 09/426,228 filed 10/22/99 and thus Herbst is applicable as prior art.

9. Claim 38 is allowed.

10. Applicant's arguments filed 7/12/10 have been fully considered but they are not persuasive. Applicant argues that in view of the amendments that the rejections under 112 1st and 2nd paragraph have been overcome. However, the claims still recite amorphous cationic polymers and therefore, the rejection is maintained.

11. Applicant's amendment has overcome the 102(b) rejection over Hosatte.

12. With regard to the 103 rejection, Applicant argues that the applied art does not meet all the claim limitation and that the examiner has not provided the proper analysis supporting the rationale why a person skilled in the art would have combined the references. However, as noted above, Herbst teaches the claimed blend of polyamideimide and polystyrene and that such blends can be used to form air conditioning components such as films having high antimicrobial activity. Therefore, the combination of Hosatte and Herbst teaches the claimed invention and the rejection is maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571)

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272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

The examiner's supervisor Rena Dye may be reached at (571) 272-3186.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

/Elizabeth M. Cole/
Primary Examiner, Art Unit 1782

e.m.c